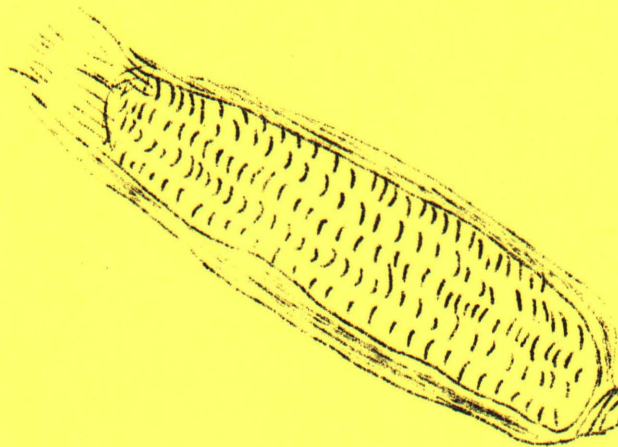


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1972 EVALUATION OF SWEET CORN CULTIVARS

1000 West Lane Avenue
Columbus, Ohio

William M. Brooks, James D. Utzinger
and William L. George, Jr.



DEPARTMENT OF HORTICULTURE
OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER
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CHICAGO AGRICULTURAL EXPERIMENT AND RESEARCH CENTER

WISCONSIN, OHIO

Botanical Series 389
January 1973

1972 Evaluation of Sweet Corn Cultivars

William M. Brooks¹, James D. Utzinger¹
and William L. George, Jr.¹

The 1972 sweet corn trial at The Ohio State University Horticultural Farm, 1000 West Lane Avenue, Columbus, consisted of twenty-eight cultivars in four replications and thirty-one cultivars in non-replicated, single plots. One of the non-replicated cultivar plots was destroyed by racoons resulting in no data for that plot.

Corn was seeded on May 22, 1972, in 36" rows with hills spaced at 18 inches. Single row plots of 21 hills were 31.5' long. Blocks and tiers of plots were separated by a distance of six feet. Guard rows were planted to the east and west sides of rows running north and south with 3 guard hills across the north and south ends of the entire planting. All plots were planted by hand jabber with 4 kernels per hill. Plants were thinned to 2 plants per hill at the 2 to 3 leaf stage.

Prior to planting, 12-12-12 fertilizer was applied broadcast and disked in at the rate of 500 pounds per acre. No additional fertilizer was applied during the season. Ramrod was applied, immediately after planting, at the recommended rate. No insecticides and fungicides were applied after planting. However, most of the lots of seed planted had been treated with a fungicide and/or an insecticide.

Weather Data

	<u>Average Temperature (°F.)</u>	<u>Total Rainfall (Inches)</u>
May	60.8	2.56
June	63.6	3.98
July	71.9	2.60
August	70.1	7.96

¹ Department of Horticulture, 2001 Fyffe Court, Columbus, Ohio 43210

Figure 1. The effect of the number of trials on the mean number of correct responses. The number of correct responses increased with the number of trials. The error bars represent the standard error of the mean.

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Many thanks

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1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 26

ACKNOWLEDGMENTS

10

Seed Sources

<u>Code</u>	<u>Sources</u>
A-1	Agway, Inc., Buffalo, N.Y. 14240
A-2	Asgrow Seed Co., Orange, Conn. 06477
B-2	W. Atlee Burpee Co., Philadelphia, Pa. 19132
F-2	Ferry-Morse Seed Co., Mountain View, Calif. 94042
H-1	Joseph Harris Co., Rochester, New York 14624
K-1	Dr. E. Kerr, Ministry of Agr. and Food, Simcoe, Ontario, Canada
L-1	Letherman's Inc., Canton, Ohio 44702
N-1	Northrup, King & Co., Minneapolis, Minn. 55413
N-2	Niagara, FMC Corp., Modesto, Calif. 95618
R-1	Robson Quality Seeds, Inc., Hall, N. Y. 14463
R-2	Rogers Brothers Co., Idaho Falls, Idaho 83401
S-1	Stokes Seed Inc., Buffalo, N. Y. 14205

Results and Discussion

The first harvest was made on July 27 and the last harvest on August 23. Of the twenty-eight cultivars in the replicated trials, the cultivars harvested at the earliest dates were Seneca 60-11 and Earliking. Bravo and Northern Belle L.were harvested on the same day with essentially the same total number of marketable ears harvested (Table 1).

The highest yielding plots, based on dozens of marketable ears harvested per acre,were Gold Crown and Seneca Chief followed closely by Gold Cup. Silver Sensation and Silver Queen, whitekerneled cultivars, produced the same yield of marketable ears per acre. The cultivars, Bravo and Merit produced the highest percentage of marketable ears. Gold Crown and Merit had the longest husked ears. Gold Crown produced the highest unhusked tonnage per acre.

In terms of defects, worm injury was of greater incidence than was smut in this particular trial.

The non-replicated plot results are listed in Table 2 according to days to first harvest and total dozens of ears harvested per acre. The first listing includes the named cultivars and the second listing the "experimental" or "numbered" lines.

TABLE 1 - Replicated Trial: Yield and Other Characteristics of Sweet Corn Cultivars

Variety, Source and Lot Number ^a	Days to First Harvest	Marketable Yield/A			Average Wt. of Ears Un- husked (lbs)	Average Length of Ears Husked (In.)	Average Diameter of Ears Husked (In.)	Ear Smut %	Ear Worm %
		Dozens of Ears	Wt. (Tons)	Percent					
Seneca 60-11 R-1 1740	66	1172	3.14	70.1	.45	7.0	1.4	0.5	4.5
Earliking H-1 108	69	1354	4.26	60.7	.52	7.0	1.6	5.4	6.9
Spring Gold H-1 137	71	1450	4.54	75.2	.51	6.7	1.6	0.8	10.5
Sprite H-1 142	71	1364	4.54	73.0	.56	6.8	1.7	5.3	13.6
Silver Sweet B-2 5252	71	1344	3.38	74.3	.42	5.8	1.3	1.5	3.0
Bravo A-2 83501-F40	74	1498	4.97	92.8	.55	6.9	1.7	0.0	4.7
Northern Belle L H-1 1312	74	1460	5.14	73.1	.58	7.4	1.6	0.4	0.7
Jubilee R-2 18013	77	1767	6.23	79.8	.60	7.8	1.6	1.3	5.5
Bonanza F-2 9114	79	1536	5.30	79.6	.57	8.3	1.5	0.0	2.5
Gold Winner H-1 119	79	1364	4.83	78.9	.57	7.7	1.5	0.4	2.4
NK-199 N-1 37177-10608	79	1316	5.03	76.0	.63	7.6	1.7	0.0	3.1
Gold Cup H-1 118	80	2093	6.28	85.0	.50	7.5	1.5	0.0	5.6
Gusto A-2 83513-F40	80	1617	5.89	89.1	.64	7.5	1.6	0.4	6.4
Gold Crown H-1 117	81	2257	9.39	87.5	.69	9.0	1.6	0.0	14.1
Seneca Chief R-1 1382	81	2218	7.04	83.0	.52	7.1	1.5	3.3	10.3
Merit A-2 13505-F40	81	1700	7.25	90.2	.71	9.7	1.9	0.0	0.9
Stylepak F-2 9249	81	1429	6.42	80.3	.74	8.2	1.8	0.0	13.1
Tastyvee R-1 1230	81	855	2.72	74.9	.42	7.2	1.5	1.3	7.8
Longchief 65 N-2 3-72	82	1623	6.62	82.6	.68	Data lost		0.0	0.4
Victory Golden A-2 83019-F40	84	1846	7.42	84.5	.67	7.7	1.6	0.4	0.7
Midway A-2 83541-F40	84	1488	5.49	67.1	.61	8.0	1.6	0.0	12.3
Sweet Sue H-1 143	84	1383	4.62	88.0	.56	8.1	1.6	0.4	0.7
Golden Shipper N-2 71-4930	86	1949	7.32	81.9	.62	8.9	1.5	0.0	8.5
Seneca Scout R-1 1732	86	1641	6.06	86.0	.62	7.7	1.5	0.0	2.6
Honeycross B-2 6263	86	1602	5.91	83.6	.58	7.5	1.7	0.0	16.0
Silver Sensation L-1 1707H	91	1865	7.63	83.8	.68	Data lost		0.3	2.3
Silver Queen R-2 18083	91	1855	7.00	76.9	.62	7.5	1.6	1.2	5.1
Golden Queen R-2 18503	91	1617	6.61	81.5	.72	8.2	1.6	0.8	14.9
LSD at 5% Level		383	1.59						

^a Cultivars ranked according to days to first harvest and dozens of marketable ears per acre.

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TABLE 2 - Non-Replicated Observation Plots: Yield and Other Characteristics of Sweet Corn Cultivars

Variety, Source and Lot Number ^a	Days to First Harvest	Marketable Yield/A			Average Wt. of Ears Un- husked (lbs)	Average Length of Ears Husked (In.)	Average Diameter of Ears Husked (In.)	Ear Smut %	Ear Worm %
		Dozens of Ears	Wt. (Tons)	Percent					
Sunchief A-1 V297	74	1229	5.13	80.5	.69	8.3	1.8	0.0	22.2
Trail Blazer F-2 90100	74	1229	4.44	83.2	.60	8.2	1.5	0.0	46.3
Sugar Daddy F-2 90816	74	807	2.16	56.6	.44	8.0	1.5	2.5	0.0
Seneca Star R-1 1071	74	691	2.71	55.4	.65	8.2	1.7	3.8	7.5
Barbecue S-1 128	77	691	1.52	49.3	.36	7.6	2.3	0.0	12.2
Valley Market F-2 90100	79	1533	5.20	84.6	.56	8.9	1.4	0.0	12.3
Pacer A-2 83551-F40	80	1690	5.78	86.6	.57	8.0	1.5	0.0	7.1
Dominator R-2 98001	80	1421	5.20	63.0	.61	8.6	1.6	0.0	0.0
Burbank B-2 6214	81	1191	5.20	79.2	.65	8.5	1.7	0.0	24.5
Illinois Extra Sweet B-2 5233	81	492	0.96	48.6	.32	8.4	1.4	0.0	3.7
Goldie N-1 36888-10102	84	1306	4.81	82.9	.61	8.3	1.4	0.0	0.0
Goldenrod N-2 43221-4951	85	1575	6.63	81.6	.70	Data lost		0.0	2.1
Aristocrat N-2 43216-6904	88	1498	4.95	84.6	.55	8.3	1.7	0.0	9.6
Golden Monarch N-1 36895-N12	91	1114	3.82	96.5	.57	7.6	1.7	0.0	28.1
<u>Experimentals</u>									
VH701 K-1	74	1152	3.91	85.4	.56	7.6	1.6	2.6	5.1
NCX2005 N-2 71-H	77	461	1.47	42.1	.53	7.1	1.5	2.7	10.8
70-2428 R-2 18131	79	1460	5.09	71.1	.58	8.2	1.6	0.0	15.6
NCX242 N-2 71-H	79	1091	4.72	71.7	.72	8.8	1.6	3.5	22.5
VH702 K-1	79	538	2.00	51.8	.62	8.6	1.0	2.3	4.5
XP358 A-2 F71362-F40	84	1498	5.20	93.0	.57	7.7	1.6	0.0	2.2
70-2163 R-2 18108	84	1268	4.30	85.8	.56	7.7	1.7	0.0	0.0
E667 N-1 37423-667	84	1229	5.82	89.7	.79	Data lost		0.0	2.4
70-2416 R-2 18113	86	1114	3.77	84.5	.56	7.9	1.8	0.0	38.7
E1502 F-2 H71	86	999	3.36	74.5	.56	7.7	1.8	0.0	35.6
E-5555 F-2 90702-13227	88	1421	4.56	83.9	.53	9.1	1.5	0.0	1.8
E668 N-1 36826-10202	88	1210	4.72	77.7	.65	8.9	1.7	0.0	11.5
XP299 A-2 13511-F40	91	1536	5.69	91.8	.61	9.0	1.5	0.0	9.8
Seneca XP170 R-1 1812	91	1268	4.12	88.6	.54	8.0	1.5	0.0	15.6
NCX245 N-2 71-H	91	1152	4.46	90.7	.64	8.1	1.7	0.0	7.9
XP1281 A-2 F71360-F40	93	423	1.54	49.6	.60	8.2	1.5	2.9	2.9

^a Cultivars ranked according to days to first harvest and dozens of marketable ears per acre.

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